

INFORMATION SHEET

ORDER NO. R5-2009-_____
CITY OF BAKERSFIELD
WASTEWATER TREATMENT PLANT NO 2
KERN COUNTY

The City of Bakersfield's (Discharger) Wastewater Treatment Plant No. 2 (WWTP No. 2) serves the eastern portion of the incorporated Bakersfield metropolitan area (City) generally east of Highway 99 in Kern County. WWTP No. 2 is currently regulated by Waste Discharge Requirements Order No. 97-104 (WDRs) and Cease and Desist Order No. 97-105 (CDO).

Background

WWTP No. 2 opened in 1958 and was upgraded to a secondary treatment plant in 1978 with a design capacity of 19 mgd. The 1978 plant consisted of headworks, two primary clarifiers, four aerated lagoons, two sludge digesters, eighteen sludge drying beds, and eight storage ponds. In September 2000, the Discharger completed an expansion of the WWTF to increase the daily flow capacity of the plant to 25 mgd. The expansion included adding one additional primary clarifier, three trickling filters, three secondary clarifiers, two additional sludge digesters with methane recovery and a cogeneration system, and an upgrade of the effluent pumping system. In 2004, an effluent storage expansion project was completed that converted the four aerated lagoons to one storage pond and expanded the storage capacity of another existing storage pond.

Treated effluent was recycled on 5,146 acres of farm land owned by the Discharger and farmed by Gary Garone Farms under Wastewater Reclamation Requirements Order No. 82-049. On 23 April 1982, the Central Valley Water Board adopted Waste Discharge Requirements ([WDRs](#)) Order No. 82-050 permitting a monthly average dry weather discharge of 19 mgd.

The current WDRs authorize the discharge to land of up to 19 mgd of undisinfected secondary-treated effluent to nine storage ponds and to approximately 5,476 acres of nearby farmlands for recycling. In addition to the municipal influent, WWTP No. 2 accepts approximately 1,600,000 to 1,900,000 gallons a month of septage and restaurant grease. The septage/grease is disposed of into the influent line prior to the headworks. WWTP No. 2 is the Discharger's only facility that accepts septage and restaurant grease at this time.

Effluent is recycled to a multi-parcel disposal area located mostly south of WWTP No. 2. The disposal areas are divided into northern (T30S, R28E) and southern (T31S, R28E) disposal areas. The disposal areas in 1997 consisted of 5,476 acres of farmland.

In January 2006, the Discharger submitted a Report of Waste Discharge (RWD) for the reduction of the available acreage to 4,196 acres of farmland and a revised RWD in April 2006. Central Valley Water Board staff concurred with the findings of the revised RWD in an April 2006 letter to the Discharger. The tentative WDRs circulated reflected the reduction in available acreage; however, in its comments to these WDRs, the Discharger now reports the entire 5,476 acres will remain available for wastewater recycling.

Presently, WWTP No. 2 is well within the 25 mgd design flow (14.5 average since 2007), but the WDRs should be updated to reflect the numerous changes to WWTP No. 2 since the

WDRs were prepared in 1997. Effluent concentrations and reporting are not an issue because the effluent typically meets the prescribed effluent limits (discussed in greater detail in the following pages), and monitoring reports are submitted complete and on time.

Solids/Biosolids Disposal

Solids removed by the bar screens and materials collected from the grit chamber are disposed of at a sanitary landfill.

Sludge and scum are pumped to three anaerobic digesters and digested sludge is discharged to 18 unlined sludge drying beds. Decant from the sludge beds is returned to the headworks. Gas produced by the digestion units is used as a fuel for the cogeneration plant. Dried sludge is used as a soil conditioner/amendment and fertilizer for non-human consumption crops grown on designated farmlands owned by the City of Bakersfield. The Discharger submits Annual Biosolids Management Reports.

The Discharger's *Final Biosolids Management Plan* dated 26 September 1997 describes its management plan for biosolids applied to the reclamation area. The Discharger conducts quarterly sampling of the biosolids and monitors the cumulative loading of metals in the biosolids applied pursuant to 40 CFR Part 503.

The Discharger prepares Annual Land Management reports that document the amount and to which field's biosolids were applied. According to data presented in the 2007 Annual Land Management report, the Discharger applied 3,832 dry US tons of biosolids generated from both WWTP No. 2 and WWTP No. 3 in 2007. The reclamation area farmland is currently leased to the Progressive Associates Group to farm the acreage until 2015.

Groundwater Conditions

The hydrogeologic conditions beneath WWTP No. 2 and the disposal areas are complex. A 1982 *Groundwater Conditions in the Vicinity of Bakersfield WWTP No. 2* by M. Rector Inc. indicates the former channel of the Kern River is present in the area. The "1887 Kern River Channel" is depicted as being generally west of the disposal areas and WWTP No. 2 and the "Ancient Kern River Channel" is depicted cutting across the northern disposal areas and beneath WWTP No. 2. The former river channels are reported to be associated with some of the perched groundwater conditions in the region.

Furthermore, the Corcoran Clay is present beneath the southern disposal areas, but not beneath WWTP No. 2 or the northern disposal areas. This results in groundwater occurring in two main aquifers (a discontinuous perched zone and an unconfined aquifer) in the vicinity of WWTP No. 2 and the northern disposal areas, and in three main aquifers (a confined aquifer in addition to the perched and unconfined aquifers) beneath the southern disposal areas. The Discharger monitors the perched or shallow water bearing zone and the unconfined aquifer. Available data does not indicate that monitoring of the confined aquifer is necessary.

Groundwater Monitoring Network

According to the *2008 Summary of Groundwater Conditions* prepared by GEOCON Consultants on behalf of the Discharger, the Discharger uses a combination of piezometers,

groundwater monitoring wells, and domestic/irrigation supply wells (also called City Wells) to monitor groundwater quality. The groundwater monitoring network consists of: about 58 piezometers to monitor the shallow groundwater zone of which 40 are owned by the Discharger and 18 are owned by the Kern County Water Agency (KCWA); about 56 domestic/irrigation wells (supply wells) of which 20 are monitored by the Discharger and 36 are monitored by the Kern Delta Water District (KDWD); and 6 groundwater monitoring wells owned by the Kern Sanitation Authority (KSA).

The shallow zone is monitored using about 58 piezometers of which 40 are owned by the Discharger and 18 are owned by the Kern County Water Agency (KCWA). Monitoring of the shallow groundwater zone is conducted on a semiannual basis (KCWA data is collected annually) and includes recording the depth to perched water and measuring EC values if water is present. The depth of the piezometers ranges from about 11 to 30 feet below the ground surface (bgs). In 2008, the Discharger located only 22 of its 40 piezometers, and only five of those contained measurable groundwater. In piezometers sampled in 2008, EC concentrations ranged between about 230 to 2,700 $\mu\text{mhos/cm}$.

Monitoring of the domestic/irrigation wells is conducted on a semiannual basis, while monitoring of the KSA wells is conducted on a quarterly basis. Only partial construction details are available for 10 of the 20 supply wells monitored by the Discharger. Two of the wells appear to be set in both the confined and unconfined aquifer, and several have well screens greater than 100 feet in length. There is nearly no information available regarding the depth of well seals, filter packs, etc. The lack of construction details brings into question whether the monitoring network provides adequate coverage for the WWTP and if wells are truly set in only the unconfined aquifer.

It appears only the six KSA wells are true groundwater monitoring wells. These wells are reported to range from 150 to 220 feet in depth and have 40-foot screened intervals. None of the KSA wells are upgradient of WWTP No. 2.

Depth to Groundwater

In 2008, the Discharger could locate only 22 of its 40 piezometers, and only five of those contained measurable perched groundwater. In February 2008, 11 of 18 KCWA piezometers contained measurable perched groundwater, with the other seven dry. The depth to water in the piezometers in 2008 ranged from about seven to 28 feet bgs.

The depth to groundwater in the KSA wells in 2007 ranged from about 106 to 162 feet bgs. Based on the KSA wells, the direction of groundwater flow at WWTP No. 2 is somewhat variable due to the mounding caused by the existing storage ponds, but the regional flow direction is to the east/southeast.

The depth to water in 2008 ranged from about 72 to 297 feet bgs in the supply wells. This does not likely represent the true depth to groundwater due to differences in well depths, screened intervals, and filter packs. In the 1982 M. Rector, Inc. report, the depth to groundwater was reported to be less in the southern area and greater in the northern area and resulted in the direction of flow in the southern area being to the north/northeast. Recent

reports, however, show the wells in the southern areas to have greater depths to water which results in a flow direction to the east southeast. In a 2005 *Summary of Groundwater Conditions in the Vicinity of WWTP No. 2* prepared by Ken Schmidt and Associates, Mr. Schmidt states that the gradient as shown to the east/southeast is due to the fact that the KSA wells were installed shallower than the supply wells and the depths to water recorded from them are less (i.e., they have a higher groundwater elevation) than those reported for the supply wells.

Groundwater Quality

Shallow Groundwater Zone

In piezometers sampled in 2008, EC concentrations vary greatly and ranged between about 230 to 2,800 $\mu\text{mhos/cm}$. However, the 2,800 EC result is from a piezometer that is upgradient of WWTP No. 2 indicating the WWTP is not the likely source of the elevated EC. The piezometer monitoring network appears of little use in measuring the presence of perched groundwater or its quality and monitoring of the piezometer network should be discontinued.

Unconfined Aquifer

Groundwater quality in the KSA and supply wells is highly variable and likely due to various outside influences both past and present. The former Kern River channel appears to correlate to some of the elevated concentrations. Review of oil field records found numerous permits for oil wells in the disposal areas. Review of aerial photographs identified several confined animal facilities located upgradient of the monitoring wells and several ponds of unknown use were observed.

Groundwater quality in the KSA wells is shown in Table 3.

TABLE 3 – KSA WELL WATER QUALITY

<u>Constituents</u>	<u>Units</u>	<u>KSA1</u>	<u>KSA2</u>	<u>KSA3</u>	<u>KSA4</u>	<u>KSA5</u>	<u>KSA6</u>
Electrical Conductivity	$\mu\text{mhos/cm}$	698	862	994	1030	1370	912
Chloride	mg/L	92	186	195	152	223	142
Nitrate (as N)	mg/L	5.9	1.1	6.5	13	4.6	10.2

Average EC concentrations are highest in wells KSA4 and KSA5. KSA4 is downgradient of the disposal ponds and the City's composting facility, while KSA5 is downgradient of a disposal area in Section 28, T30S, R28E. It seems unlikely that the effluent that has averaged about 742 $\mu\text{mhos/cm}$ since 2007 would cause the observed concentrations. Both wells are in sections that have had historic oil field operations and appear to be within the Ancient Kern River Channel.

Two other wells, KSA2 and KSA3, currently have EC concentrations over 1,000 $\mu\text{mhos/cm}$, although their historic averages are less than 1,000 $\mu\text{mhos/cm}$. KSA3 has only increased slightly from about 950 $\mu\text{mhos/cm}$ in 1998 to about 1,030 in 2008, but KSA2 has shown a

significant increase in concentration from about 650 $\mu\text{mhos/cm}$ in 1998 to about 1,100 $\mu\text{mhos/cm}$ in 2008. KSA2 is located in the northern disposal area downgradient of the disposal area in Section 15, T30S, R28E. Oil field activities have occurred in this area in the past and it appears to be within the channel area of the Ancient Kern River. Chloride concentrations are increasing as well, but nitrate is less than 2 mg/L. This suggests reducing conditions in this area. It is unclear what the cause of the increases in this well are from, but the Discharger needs to evaluate the increasing trends in this well.

All chloride concentrations in the KSA wells are below the secondary MCL of 250 mg/L, but all but one are above the lowest agricultural limit for salt sensitive crops of 106 mg/L. There is no true KSA background well, but chloride concentrations in City Well 2 (background supply well) averaged about 31 mg/L up to 2007. With an average chloride concentration of about 75 mg/L since 2007, it seems unlikely that WWTP No. 2 is the cause of the elevated chloride concentrations observed. The elevated concentrations are likely the result of other offsite activities.

Nitrate as nitrogen concentrations are above the Primary MCL of 10 mg/L in wells KSA4 and KSA6. Both wells are downgradient to crossgradient of the City's biosolids disposal area.

EC concentrations in the supply wells were highly variable and ranged from about 400 to 5,000 $\mu\text{mhos/cm}$ in 2008. The highest EC concentrations are recorded in a well designated City Well No. 12 (31S/28E-10C). City Well No. 12 is downgradient of one of the southern disposal areas. It is unclear what aquifer this well draws from, but it would not appear effluent could cause such high concentrations.

Average chloride concentrations in the supply wells ranged from about 17 mg/L to 1,120 mg/L, with the highest concentrations observed in City Well No. 13, which has not been sampled since July 2005 due to the pump being inoperable.

Samples from the supply wells are analyzed for nitrate (as N) and have averaged from less than 1 mg/L to 16 mg/L. Two wells had concentrations greater than 10 mg/l in 2008, City Well Nos. 10 and 16. Both wells are in the southern disposal area and appear to be downgradient of what appear in aerial photographs to be dairies.

The upgradient well, City Well No. 2, is at a closed golf course and the well has been reported inoperable since January 2007; hence, no samples have been collected since then.

The information presented above points out the inadequacy of the existing monitoring well network. Most piezometers have not contained measurable water in years and many have not been located for years. Construction information for many of the supply wells is not available and the well previously used for background water quality monitoring is no longer operable. It appears the depth of the supply wells influences the depth to water in each well and likely results in the direction of groundwater flow being incorrectly represented. The new WDRs should contain a provision requiring the Discharger to evaluate its groundwater monitoring network and propose new wells and/or changes in monitoring to best characterize groundwater conditions.

Compliance History

The Discharger submits monthly, quarterly, and annual self-monitoring reports (SMRs) in compliance with the Monitoring and Reporting Program. The Discharger typically submits complete monitoring reports in a timely manner. There were no late or incomplete reports submitted in 2007, 2008, or to date in 2009.

BOD concentrations in effluent exceeded the monthly average limit of 40 mg/L twice since January 2008 (once in February 2008 at 41 mg/L and once in May 2009 at 43 mg/L). Both occurrences were reported to be the result of upsets to the treatment systems. The discharge is now compliant with the existing and proposed effluent limits.

The calculated limit for EC (500 µmhos/cm plus the EC of the source water) and the flow limit of 19 mgd have not been exceeded since at least January 2007. As shown by the above data, the effluent is typically compliant with the various limits.

The WWTP has been inspected seven times since August 1997 and four NOV's have been issued. A March 1999 inspection resulted in the preparation of an NOV for pond embankment erosion and exceeding the BOD and TSS limits. The Discharger submitted an August 1999 letter indicating the embankment problems were addressed during plant expansion activities and it was addressing the exceedance of the BOD and TSS limits. A 21 August 2000 NOV was prepared for failure to submit an O&M Plan. The Discharger provided the O&M plan on 29 August 2000. An August 2003 NOV was issued in response to an overflow of effluent outside the reclamation area. A 14 January 2008 NOV was issued following a July 2007 inspection that indicated the Discharger was exceeding the limits for BOD and pH as well as weed growth in the ponds. The Discharger submitted a May 2008 letter satisfactorily addressing the weed growth and pond construction details (not mentioned in the NOV). The effluent limit violations were not addressed, but the Discharger has typically been in compliance since 2008.

Cease and Desist Order (CDO) No. 97-105 was issued with a time schedule for the Discharger to become compliant with effluent limits in the WDRs. In order to be compliant with the CDO, the Discharger was required to expand and upgrade WWTP No. 2 by January 2000, submit monthly status reports documenting the progress of the expansion activities, and comply with the effluent limits following the expansion activities. The Discharger completed the expansion of the WWTP in September of 2000 and submitted the monthly status reports as required. Rescission of the CDO is considered in a separate order.

Basin Plan, Beneficial Uses, and Regulatory Considerations

The Basin Plan indicates the greatest long-term problem facing the entire Tulare Lake Basin is increasing salinity in groundwater, a process accelerated by man's activities and particularly affected by intensive irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. The Regional Water Board encourages proactive management of waste streams by dischargers to control addition of salt through use, and has established an incremental EC limitation of 500 µmhos/cm as a measure of the maximum permissible addition of salt constituents through use.

Discharges to areas that may recharge good quality groundwaters shall not exceed an EC of 1,000 µmhos/cm, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.

Antidegradation

The antidegradation directives of State Water Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality Waters in California," or "Antidegradation Policy" require that waters of the State that are better in quality than established water quality objectives be maintained "consistent with the maximum benefit to the people of the State." Waters can be of high quality for some constituents or beneficial uses and not others. Policy and procedures for complying with this directive are set forth in the Basin Plan. Degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the State. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impact on water quality will be substantially less. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and therefore sufficient reason to accommodate growth and groundwater degradation provided terms of the Basin Plan are met.

The current WDRs did not specifically address Resolution 68-16, but stated; "the discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality except for EC. For EC, the incremental increase over any five-year period shall not exceed 25 µmhos/cm."

Constituents of concern that have the potential to degrade groundwater include, in part, nutrients and salts. However, the discharge will likely not degrade the beneficial uses of groundwater because:

- a. For nitrogen, concentrations in the unconfined aquifer typically meet water quality objectives, with two of the 20 City Wells exceeding the MCL of 10 mg/L and two of the six KSA wells. Nitrate as nitrogen concentrations in the former background well (City Well No. 2) averaged about 2.0 mg/L. The Discharger stores its effluent in storage ponds prior to discharge to the farmlands. The ponds contain a compacted soil base to minimize percolation of wastewater to the underlying groundwater. The ponds are periodically allowed to go dry allowing the base layer to dry and the potential for desiccation cracks to form, so some seepage to groundwater could occur. However, the Discharger recycles its effluent on cropped farmlands at agronomic rates making it unlikely that effluent from WWTP No. 2 will degrade groundwater. As stated in the proposed Effluent Limits, the Discharger has an option of meeting the total nitrogen limit of 10 mg/L or providing a performance demonstration that effluent contained in the storage ponds will not contribute to nitrogen in groundwater exceeding the groundwater limitations. Evaluation of nitrogen concentrations in the unconfined aquifer will be a part of the groundwater monitoring evaluation required as a provision in these WDRs.

- b. For salinity, the Basin Plan contains effluent limits for EC of SW + 500 $\mu\text{mhos/cm}$, 1,000 $\mu\text{mhos/cm}$ max that considered antidegradation when adopted. With an EC of about 750 $\mu\text{mhos/cm}$, the treated effluent meets the Basin Plan limit for SW + 500 $\mu\text{mhos/cm}$. The WDRs would set an effluent limitation for EC of 500 $\mu\text{mhos/cm}$ over source or a maximum of 1,000 $\mu\text{mhos/cm}$, whichever is less and a chloride limit of 175 mg/L and should therefore not unreasonably degrade the beneficial uses of groundwater with respect to salinity. Additionally, data as far back as 1952 (prior to the construction of the WWTP) indicates EC concentrations up to 1,300 $\mu\text{mhos/cm}$ in wells downgradient of WWTP No. 2. This shows that elevated EC concentrations downgradient of WWTP No. 2 existed prior to the construction of the plant.

Sodium exceeds the most stringent agricultural limit of 69 mg/l for spray irrigated salt sensitive crops. Background sodium concentrations (based on City Well No. 2) are about 40 mg/L, while sodium concentrations in effluent average about 81 mg/L indicating some degradation could occur. However, review of various reports (USDA, *Soil Survey of Kern County: Northwestern Part*; Ayers and Westcott, *Water Quality for Agriculture*; Asano, *Wastewater Reclamation and Reuse*), soil types in the disposal areas, and land use maps showing crops grown in the region, indicates salt-sensitive crops are not likely to be grown in the area around the facility.

Ayers and Westcott indicate sodium concentrations up to 70 mg/L have no restrictions for salt-sensitive crops and concentrations from 70 to 210 mg/L have only slight to moderate restrictions. Asano provides numerical guidelines for irrigation of salt-sensitive crops and reports that sodium concentrations less than 100 mg/L have slight to no restrictions for irrigation of salt-sensitive crops.

Based on the information above, a numerical sodium limit is not necessary because sodium concentrations in groundwater will not restrict its use for agricultural or drinking water and accordingly will not unreasonably affect present and anticipated beneficial uses or result in groundwater quality exceeding water quality objectives.

The proposed WDRs do not include specific limits for all of the constituents in the current WDRs since:

- Most of the constituents have MCLs, which are specified by the Basin Plan and included under [Groundwater Limitations, G.1.a](#) of Order R5-2009-____;
- Some of the limits were duplicative (e.g., EC and TDS);
- [Groundwater Limitation G.1.b](#) will provide a mechanism to ensure that constituents without an MCL do not threaten to unreasonably degrade groundwater; and
- To prevent too many false positive violations, the list of regulatory limits should be limited to the best indicators of a groundwater problem that would be caused by the discharge.

However, groundwater will continue to be monitored for all the constituents for which limits are being dropped.

In general, the future discharge will have less impact on water quality than previously permitted discharge. The EC of the discharge will be less than the Secondary MCL of 900

µmhos/cm. Background groundwater is above this limit in places, so the appropriate groundwater limit is 1,600 µmhos/cm. Although greater than the groundwater limit in the previous WDRs, sodium concentrations average about 80 mg/L, which does not restrict usage for the areas agriculture or as a drinking water source. Additionally, the Order contains requirements for a groundwater assessment for assuring that the highest water quality consistent with the maximum benefit to the people of the State will be achieved.

In summary, this Order establishes new groundwater limits for WWTP No. 2 that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan.

Title 27

Title 27, CCR, Section 20005 et seq. (Title 27) contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for full containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent in a classified waste is acceptable under Title 27 regulations.

Title 27 Section 20090(a) exempts discharges of domestic sewage to land from Title 27 containment standards provided the Regional Water Board has issued waste discharge requirements or waived such issuance; and the discharge is consistent with applicable water quality objectives.

The discharge from WWTP No. 2 is in compliance with the requirements of the Basin Plan. It appears effluent will degrade groundwater, but the degradation is within applicable water quality objectives. Additionally, water quality is variable both downgradient and upgradient of WWTP No. 2, but those concentrations do not appear to be the result of discharge from WWTP No. 2.

CEQA

WWTP No. 2 opened in 1958 and was upgraded to a secondary treatment plant in 1978 with a design capacity of 19 mgd. A 1984 Wastewater Reclamation Permit, Order No. 82-049 was issued by the Central Valley Regional Water Board to the City of Bakersfield in April 1984 for the reclamation of wastewater to approximately 5,000 acres of agricultural lands. Finding 10 of Order No. 82-049 indicated the "project is an existing facility and is categorically exempt from the development of an Environmental Impact Report in accordance with Section 15101, Chapter 3, Title 14 of the California Administrative Code.

In 1990, the Discharger adopted a Negative Declaration for a plant expansion project in September 1990 in accordance with the California Environmental Quality Act. In September 2000, the Discharger completed an expansion of the WWTF to increase the daily flow capacity of the plant to 25 mgd. In 2004, an effluent storage expansion project was completed, that allowed the Discharge to 5,476 acres of nearby farmland. A revised RWD was prepared in April 2006 that provided documentation to decrease the required acreage to

4,196 acres at a flow of 25 mgd. Central valley Water Board staff concurred with the findings of the revised RWD in an April 2006 letter to the Discharger.

Proposed Order Terms and Conditions

Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions

The proposed Order prohibits discharge to surface waters and water drainage courses.

The proposed Order would set a flow limit of 25 mgd with effluent limits for BOD and TSS of 40 mg/L (monthly average), and 80 mg/L (daily maximum). These limitations are based on Basin Plan minimum performance standards for municipal facilities.

The discharge requirements regarding dissolved oxygen and freeboard are consistent with Regional Water Board policy for the prevention of nuisance conditions, and are applied to all such facilities.

In order to protect public health and safety, the proposed Order requires the Discharger to comply with the provisions of Title 22 and to implement best management practices with respect to recycled water application (application at reasonable rates considering the crop, soil, and climate).

The proposed WDRs would prescribe groundwater limitations that implement water quality objectives for groundwater from the Basin Plan. The limitations require that the discharge not cause or contribute to exceedance of these objectives or natural background water quality, whichever is greatest.

The proposed Order includes Provisions to prepare a salinity control plan to control the salinity of its discharge and submit a nutrient management plan to evaluate its recycling practices to comply with the groundwater limitations in this Order and ensure that beneficial uses of groundwater will be maintained. The technical report shall include a time schedule to implement the identified measures.

Monitoring Requirements

Section 13267 of the CWC authorizes the Regional Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. In recent years there has been an increased emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving accountability of any discharger for meeting the conditions of discharge. Section 13268 of the CWC authorizes assessment of civil administrative liability where appropriate.

The proposed Order includes influent, effluent, unconfined groundwater, pond, and water supply monitoring. The monitoring is necessary to evaluate the extent of the potential degradation from the discharge.

Reopener

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The proposed Order would set limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

JSP/DKP 10/8/09